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Reference	IOR/R/15/2/347
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About this record

The file contains a copy of a letter sent by the British Resident in the Persian Gulf to the Secretary of State for Foreign Affairs, regarding the date trade in Muscat. The letter encloses copies of letters forwarded by the Political Agent at Muscat on the cultivation of dates in the Persian Gulf, including a section of the report written by Mr Dawson of Basra 'on the Fauna, Flora and Geology of the parts of the Batinah visited by him in 1927' (folios 12-22).



File No. 9/6. Collection No. 1

19 .

IOR:R/15/2/347

H. H. POLITICAL AGENT
ZAHRAIN

Pros. Serial Nos.

9/6

MUSCAT DATE TRADE

Previous References. Later References.

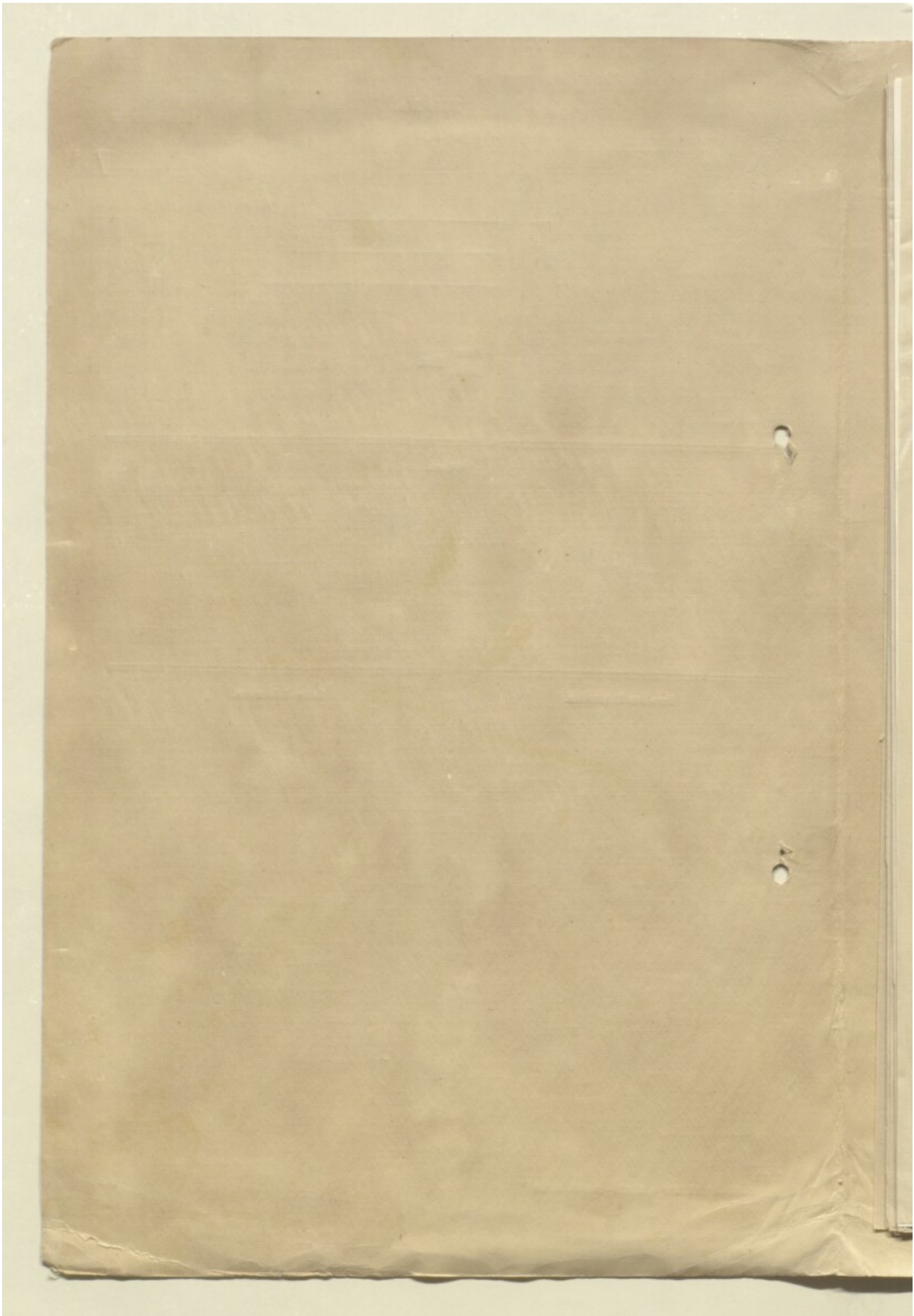
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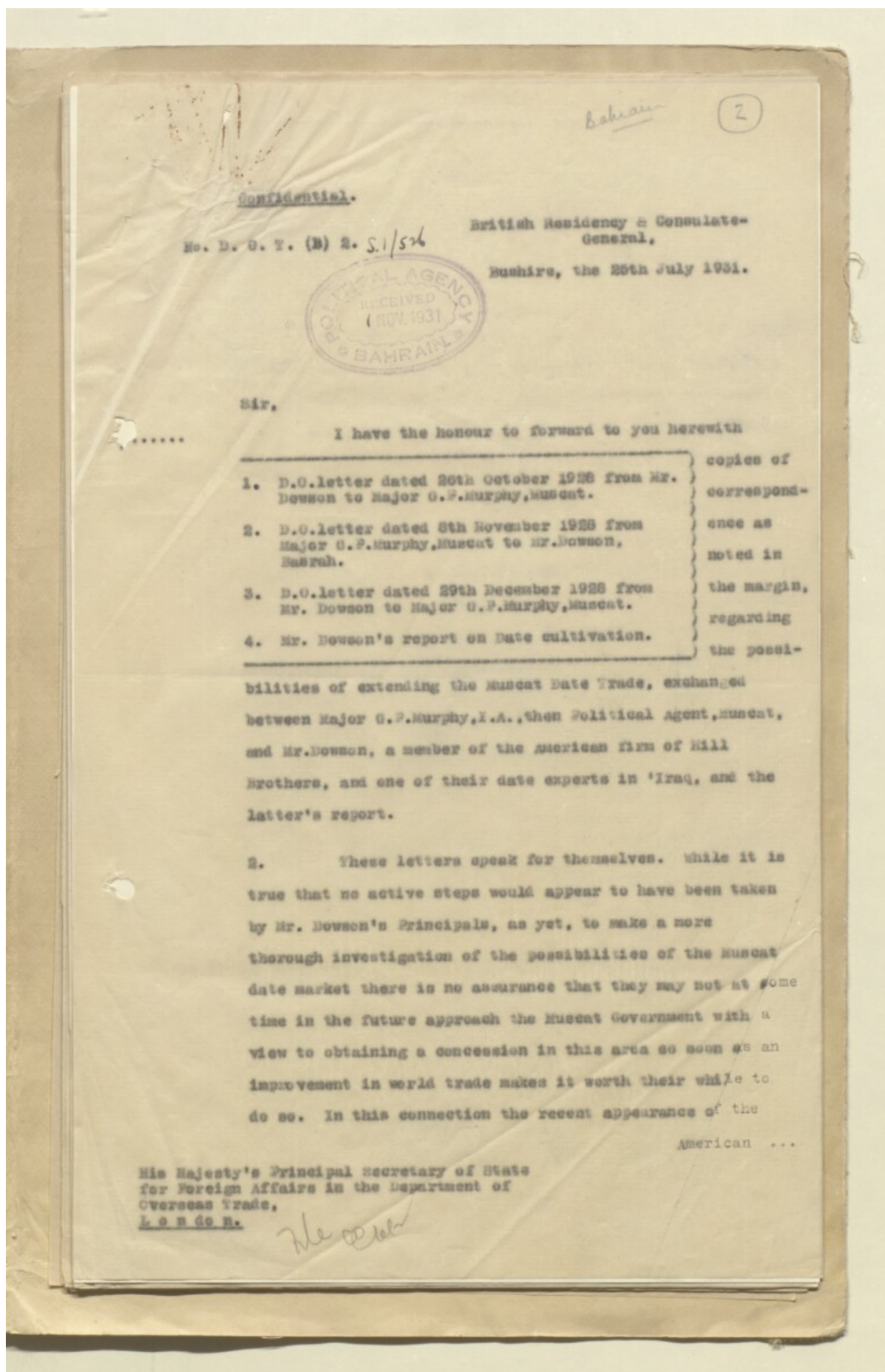
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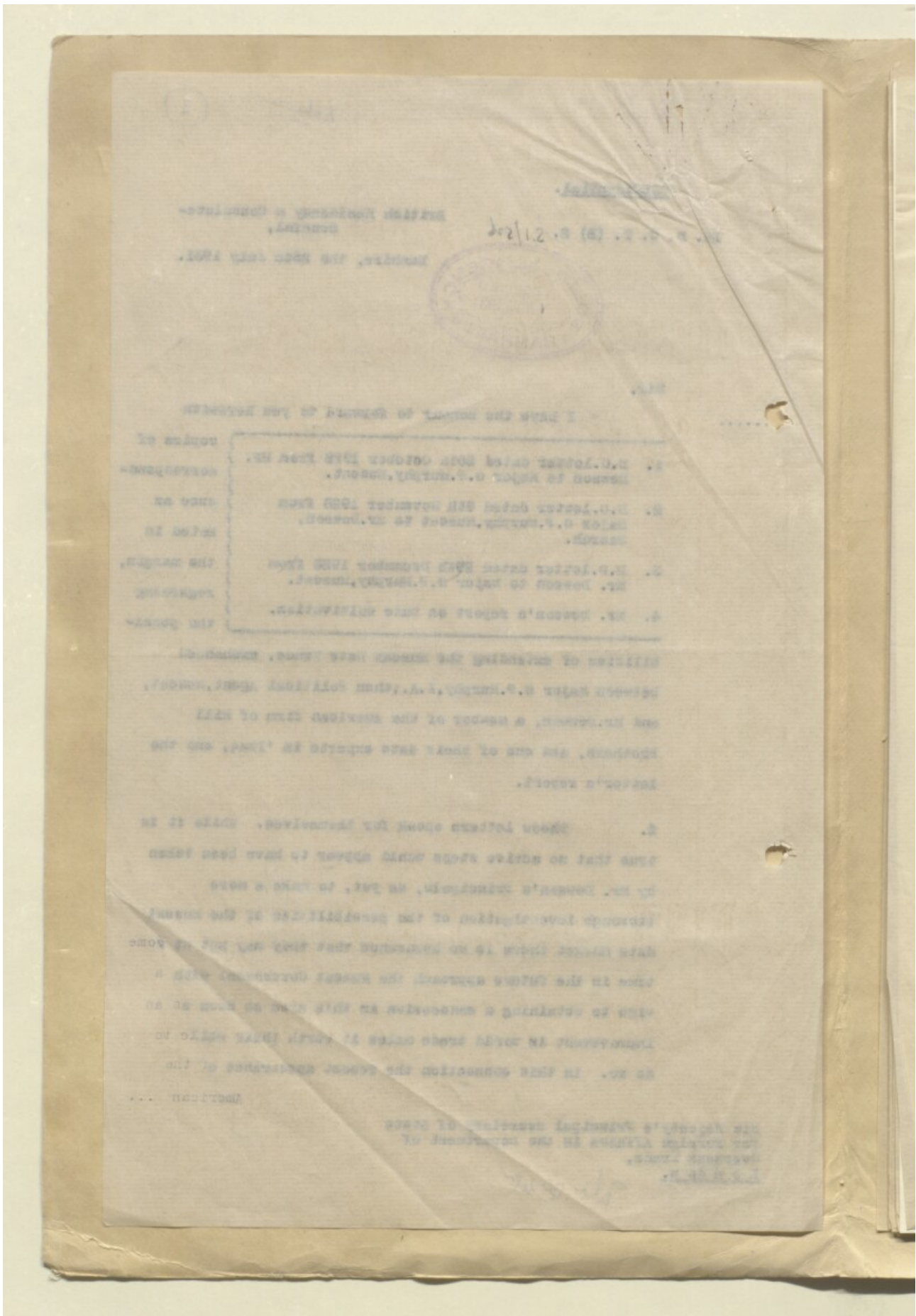
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American Silver Line in the Gulf, mainly it is understood with relation to the 'Iraq date export trade, may not be without significance.

3. The undesirability from the point of view of British interests, both political and commercial, of the acquisition by any large foreign firm of a concession on the Arab coast of the Gulf requires no emphasis and I feel that all possible steps should be taken to guard against such an eventuality.

4. As far as I am aware the only important British firm in this region likely to be able to exploit the possibilities of the Batineh date gardens are the Mesopotamia Farsia Corporation. This firm have an Indian representative at Muscat, but I doubt whether they fully realise the possibilities of the Batineh date crop. I therefore suggest that, if you see no objection to this course, the matter should be brought to the notice of the Corporation's Directors in London, and in particular to Mr. C. Wills (Gray Dawes & Co. Ltd., 122 Leadenhall Street, London).

5. I am sending copies to the Foreign Secretary to the Government of India and the Political Agent, Muscat.

I have the honour to be,

Sir,

Your most obedient,

Humble servant,

sd/-T.C.W. Fowle, Major,

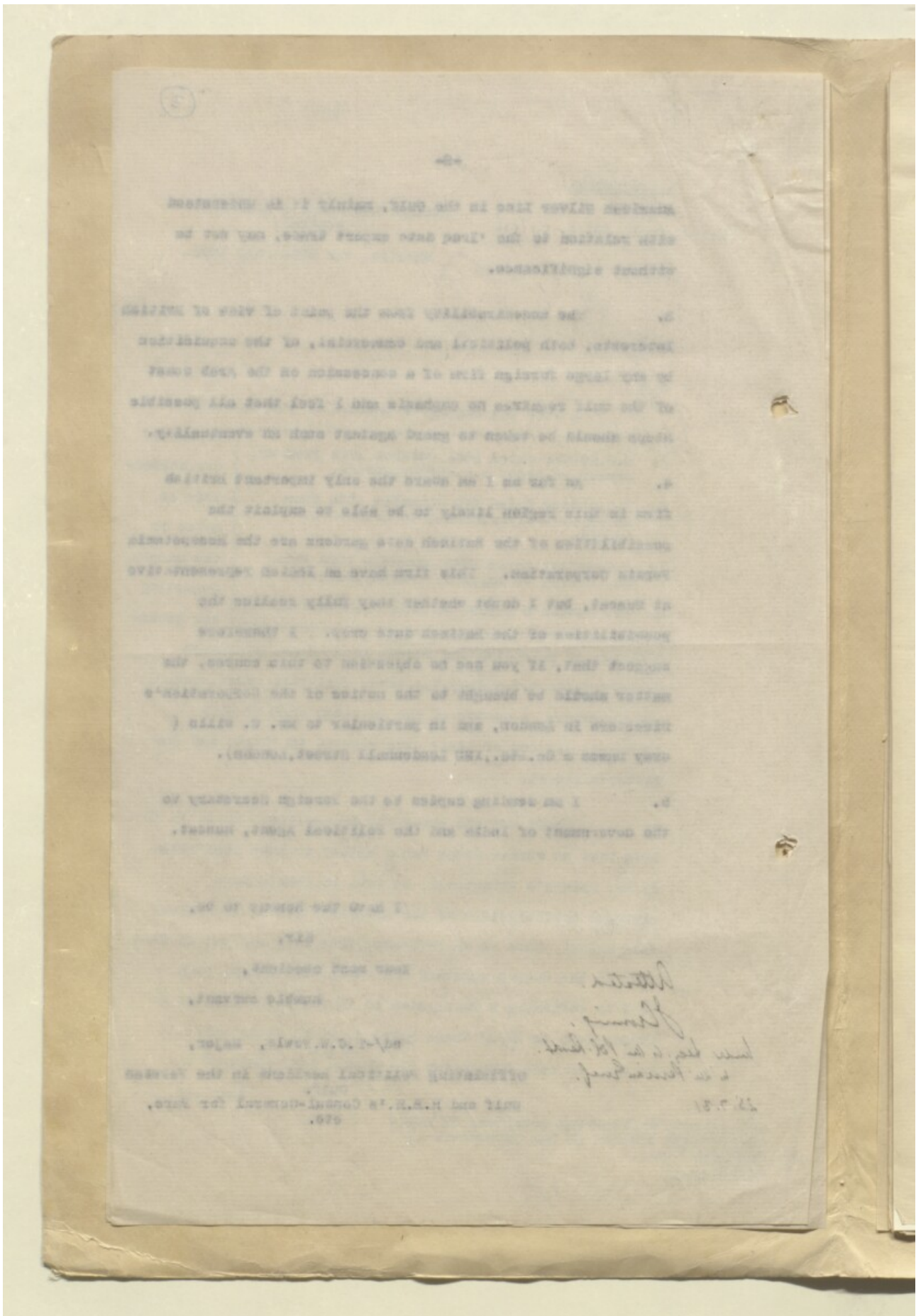
Officiating Political Resident in the Persian Gulf and H.B.M.'s Consul-General for Fars, etc.

Attested.

J. Croning.

Under Secy. to the Pol. Resid.
to the Persian Gulf.

25.7.31





(4)

Open

Copy of B/O letter from Mr. Dowson of Basra dated
October 26th 1928 to Major G.P. Murphy, I.A., Muscat.

This date season has been more than ordinarily difficult for us, and though it is premature yet to say that we have come out with a loss, I certainly do not think that there has been much profit in it. I peg away telling my elders and betters that we ought to open in Muscat in a large way; but I fear my pearls of wisdom are wasted. However, I shall be at home next year, and hope that personal interviews may have more emphasis than letters. All this by the way, please treat as between ourselves.

Now in order that I don't make a mistake, I wonder whether it would be trespassing on your kindness too much, if I were to ask you to confirm what I propose saying, namely, that along the coast north of Muscat there is an unbroken line of date palms, 100 miles along, and of a width averaging two or three or even 400 yards. Secondly, about half as many palms again as there are in this Batinah are to be found in the interior valleys and cases, distance anything from a few hours to a few days journey. Thirdly, that the prices of dates are cheaper in Muscat than in Basrah. This year, the average price in Basrah for the commonest variety, Sayir, has averaged Rs.250/- a karah. and the price of the choicest of the big commercial varieties, Hallawi, is Rs.600/- a karah. This corresponds to Rs.103/- a ton and Rs.247/- respectively. Fourthly, it would be possible to load ocean-going steamers from a jetty constructed at Khaburah or Suhar or some other village in the Batinah. Fifthly, that there would be no political or other particular difficulty to overcome in the establishment ...



Copy of 1/10 letter from Mr. Joseph of Muscat dated
October 1928 to Major G.P. Murphy, I.A., Muscat.
This date season has been more than ordinarily
difficult for us, and though it is somewhat far to say
that we have come out with a loss, I certainly do not think
that there has been much profit in it. I had very little
of the date and better than we ought to have in market in
a large way; but I took my points of view and was
however, I shall be at home next year, and hope that
personal interviews may have more success than letters.
All this by the way, please treat as between ourselves.
Now in order that I don't make a mistake, I want
to say it will be interesting on your kindess to send
if I want to ask you to continue what I have been saying,
namely, that along the coast north of Muscat there is an
unbroken line of date palms, 100 miles long, and of a
width varying two or three or even 400 yards. Usually,
about half as many palms as there are in this distance
are to be found in the interior valleys and oases, because
everything from a few hours to a few days journey. I think,
that the prices of dates are cheaper in Muscat than in
Nasr. This year, the average price is 100/- for the
commonest variety, but, has averaged 120/- a large
and the price of the choice of the old varieties
was 150/- a large, is 180/- a large. This corresponds
to 100/- a ton and 180/- respectively. You may
be able to point out to find some-going amounts from a
very considerable at Khawr or other or some other village
in the interior. I think, that there would be no profit
or other facilities difficulty to overcome in the
interior.

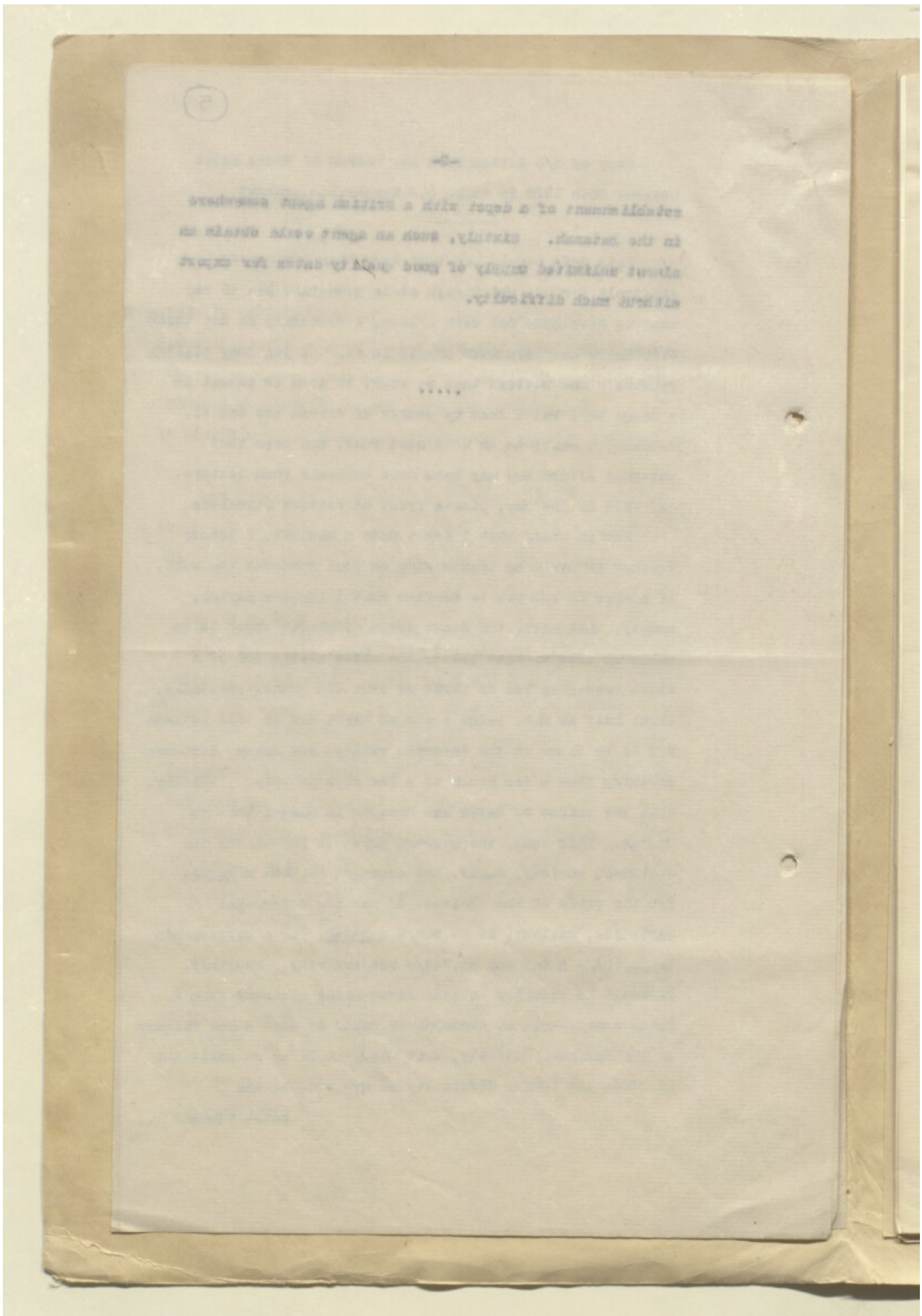


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establishment of a depot with a British agent somewhere in the Matanah. Sixthly, such an agent could obtain an almost unlimited supply of good quality dates for export without such difficulty.

.....





(6)

Muscat,

8th November 1928.

Dear Dawson,

I agree with you about the possibilities of extending of the Muscat trade in dates and certainly if your firm don't do so someone else will do so eventually.

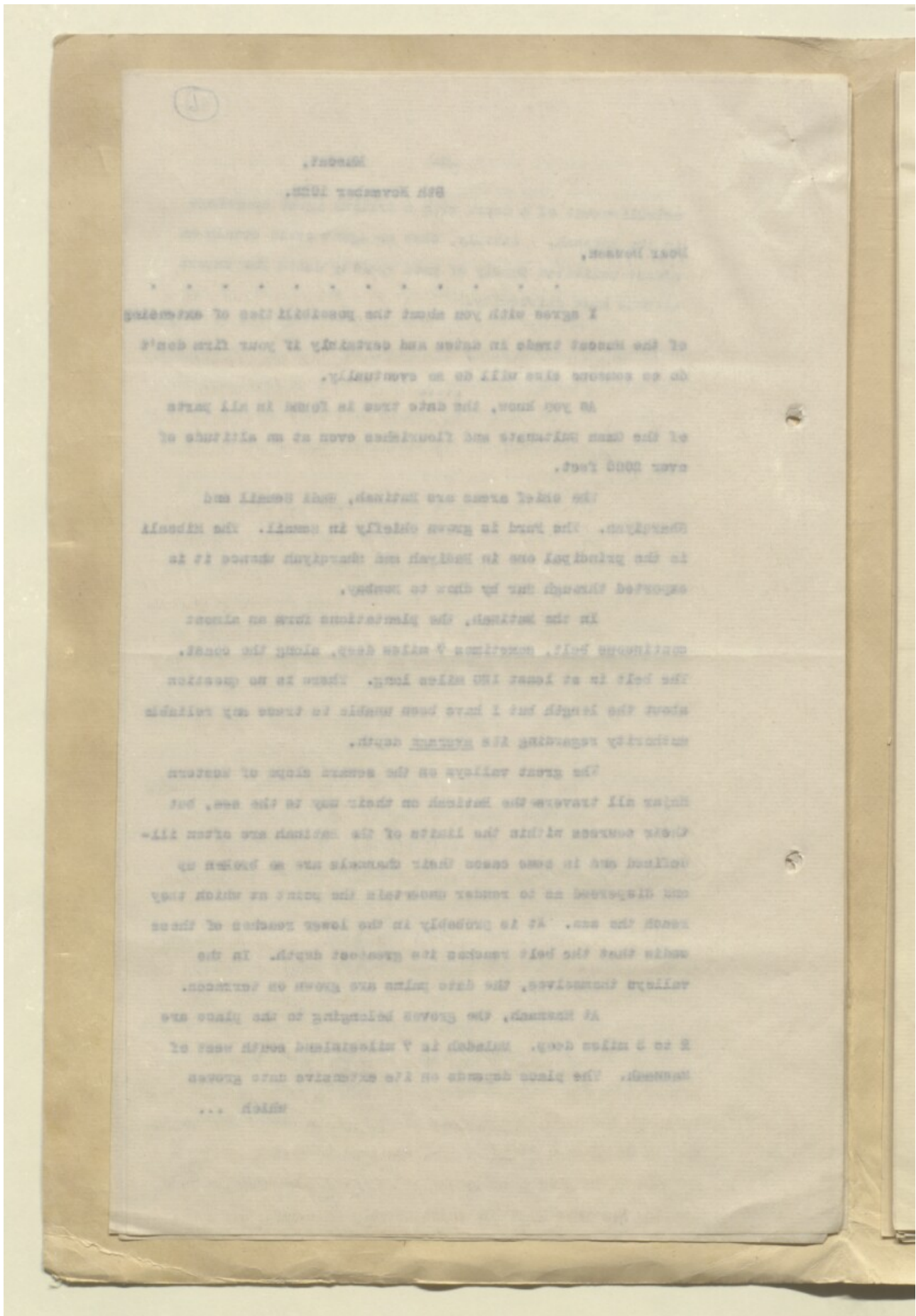
As you know, the date tree is found in all parts of the Oman Sultanate and flourishes even at an altitude of over 2000 feet.

The chief areas are Batinah, Wadi Samail and Sharqiyah. The Fard is grown chiefly in Samail. The Mibsal is the principal one in Badiyah and Sharqiyah whence it is exported through Sur by dhow to Bombay.

In the Batinah, the plantations form an almost continuous belt, sometimes 7 miles deep, along the coast. The belt is at least 120 miles long. There is no question about the length but I have been unable to trace any reliable authority regarding its average depth.

The great valleys on the seaward slope of Western Hajar all traverse the Batinah on their way to the sea, but their courses within the limits of the Batinah are often ill-defined and in some cases their channels are so broken up and dispersed as to render uncertain the point at which they reach the sea. It is probably in the lower reaches of these wadis that the belt reaches its greatest depth. In the valleys themselves, the date palms are grown on terraces.

At Masnaah, the groves belonging to the place are 2 to 3 miles deep. Muladah is 7 miles inland south west of Masnaah. The place depends on its extensive date groves which ...





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which are divided only by a narrow wadi from those of Masnaah. This gives a depth of to the belt of at least 7 miles as quoted above from another authority.

Behind Wadam again there are 4 villages from 5 to 6 miles inland all with extensive groves.

Suqaiq is the port for the wadi Bani Ghafir. The upper portion of the wadi contains at least 25,000 palms amongst other crops. The lower portion is said to contain the same crops so I presume it also contains date palms though I do not ^{know} the number.

Khaburah is the port for the wadi Hawasimah, Qusaf, one hour inland, contains extensive groves, though I cannot say whether these are contiguous with those of Khaburah. At least 2 places in the wadi Hawasimah have extensive groves.

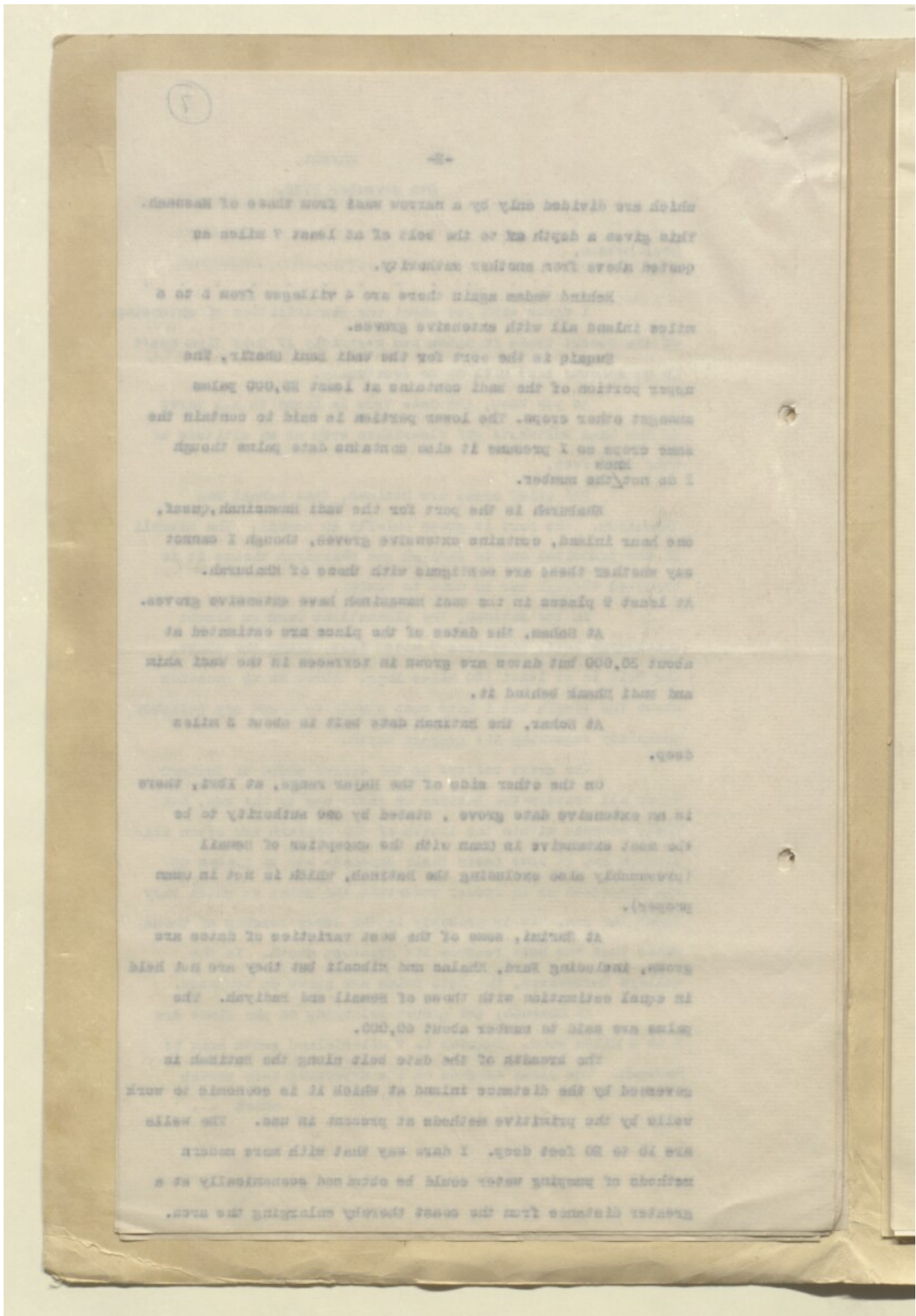
At Baham, the dates of the place are estimated at about 30,000 but dates are grown in terraces in the wadi Ahim and wadi Dhank behind it.

At Sohar, the Batinah date belt is about 3 miles deep,

On the other side of the Hajar range, at Ibri, there is an extensive date grove, stated by one authority to be the most extensive in Oman with the exception of Samail (presumably also excluding the Batinah, which is not in Oman proper).

At Barimi, some of the best varieties of dates are grown, including Fard, Khalas and Mibsal but they are not held in equal estimation with those of Samail and Radiyah. The palms are said to number about 60,000.

The breadth of the date belt along the Batinah is governed by the distance inland at which it is economic to work wells by the primitive methods at present in use. The wells are 15 to 20 feet deep. I dare say that with more modern methods of pumping water could be obtained economically at a greater distance from the coast thereby enlarging the area.





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The above data which are from reliable sources in my records are as near as answer as I can give you to questions 1 and 2. I think personally that you have underestimated the number of palms.

Thirdly, as regards prices, I enclose a list I have received from the customs which you can compare for yourself.

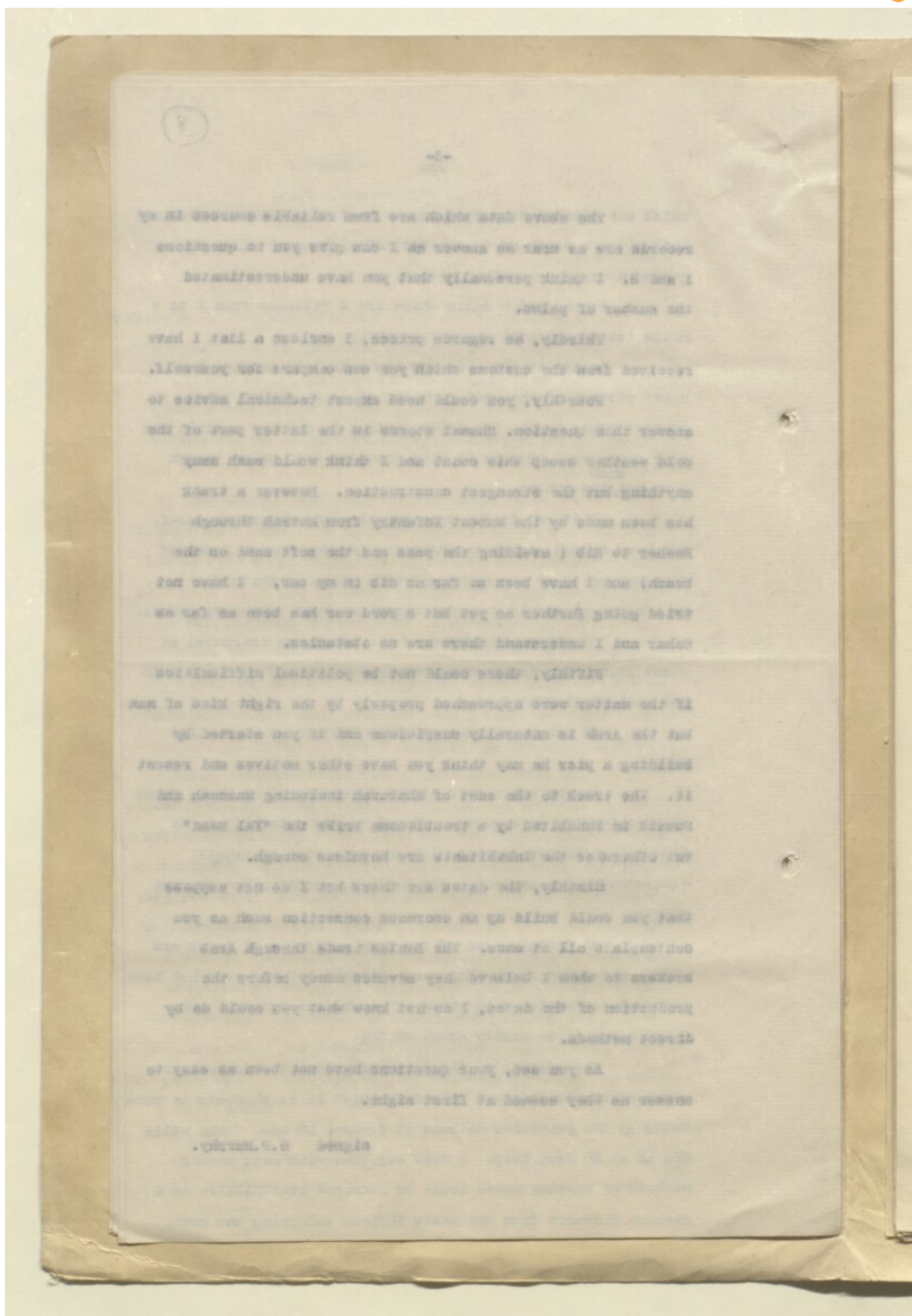
Fourthly, you could need expert technical advice to answer this question. Humal storms in the latter part of the cold weather sweep this coast and I think would wash away anything but the strongest construction. However a track has been made by the Muscat Infantry from Matrah through Basher to Hib (avoiding the pass and the soft sand on the beach) and I have been so far as Hib in my car. I have not tried going further as yet but a Ford car has been as far as Sohar and I understand there are no obstacles.

Fifthly, there could not be political difficulties if the matter were approached properly by the right kind of man but the Arab is naturally suspicious and if you started by building a pier he may think you have other motives and resent it. The track to the east of Khaburah including Masnaah and Suwaik is inhabited by a troublesome tribe the "Yal saad" but otherwise the inhabitants are harmless enough.

Sixthly, the dates are there but I do not suppose that you could build up an enormous connection such as you contemplate all at once. The Baniyas trade through Arab brokers to whom I believe they advance money before the production of the dates. I do not know what you could do by direct methods.

As you see, your questions have not been as easy to answer as they seemed at first sight.

signed G.P. Murphy.





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Basra, 29th December 1926.

Major G.F. Murphy, I.A.,
H.B.M.'s Consul and Political Agent,
Muscat.

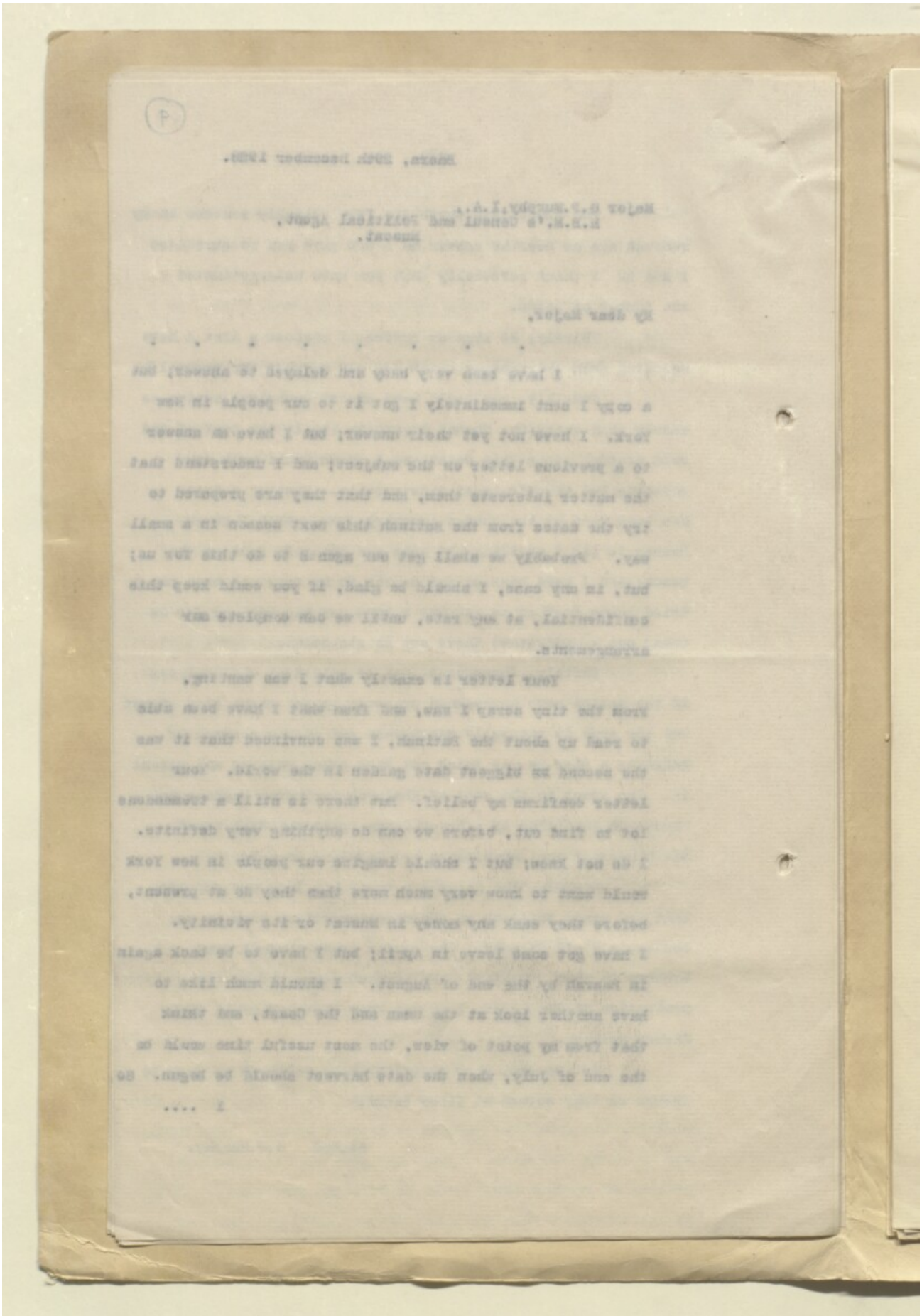
My dear Major,

.

I have been very busy and delayed to answer; but a copy I sent immediately I got it to our people in New York. I have not yet their answer; but I have an answer to a previous letter on the subject; and I understand that the matter interests them, and that they are prepared to try the dates from the Batinah this next season in a small way. Probably we shall get our agents to do this for us; but, in any case, I should be glad, if you would keep this confidential, at any rate, until we can complete our arrangements.

Your letter is exactly what I was wanting. From the tiny scrap I saw, and from what I have been able to read up about the Batinah, I was convinced that it was the second or biggest date garden in the world. Your letter confirms my belief. But there is still a tremendous lot to find out, before we can do anything very definite. I do not know; but I should imagine our people in New York would want to know very much more than they do at present, before they sank any money in Muscat or its vicinity. I have got some leave in April; but I have to be back again in Basrah by the end of August. I should much like to have another look at the Oman and the Coast, and think that from my point of view, the most useful time would be the end of July, when the date harvest should be begun. So

I





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-2-

I think I will visit Muscat then, after taking a trip down the Nile, to get a glimpse of Egypt and the Sudan. What I should like to do very much is to take a Ford along the whole length of the Batinah; but I fear that might be rather expensive. If the Company thought it worth while to pay my expenses, then I should try and do that; but, if the Company would not pay my expenses, then I should be able to afford only a donkey, and I would get as far as I could with that. I do not think I would attempt the interior; because the dates there are more scattered, and because of the political difficulties. You, I expect, will not be in Muscat in July, but if you could leave a word with the nice old Wali of Matrah that you would be obliged, if he would give me one of his scalliwags as a guide and give me his blessing, then, I think, all would be well.

I heard yesterday that there is now a Ford agent in Muscat. Is that so? and, if so, what is his name, that I may get into touch with him? How does one manage for petrol along the Batinah? ——— carry it with one? That should not be difficult. It would mean lugging along about five times, I suppose.

You are no doubt familiar with Major Gill's note on Malaria in Muscat. I read it when it was first published; but, when I wanted to reread it a little while ago, I found it was out of print in England. But I got a copy from India, and it has just arrived. His description of the climate is so documented, so calm, so free from exaggeration that I feel tempted to say to myself "Let the dates of Muscat steam in their own juice!"

The ...



I think I will write to you about this, after taking a trip down
the Nile, to get a glimpse of Egypt and the Sudan. What
I should like to do very much is to take a walk along the
whole length of the Nile; but I fear that might be
rather expensive. If the Company thought it worth while
to pay my expenses, then I should like to do that; but, if
the Company would not pay my expenses, then I should be
able to afford only a day's work, and I would not be able to
visit with that. I do not think I would attempt the
interior, because the desert there was more dangerous, and
because of the political situation. Now, I expect, will
not be in danger in July, but if you could leave a word
with the nice old fellow of the bank, you would be advised,
if he would give me one of his addresses as a guide,
and give me his blessing, then, I think, all would be well.
I heard yesterday that there is now a word about
in London. Is that not true, or is it in his name, that
I say not this much with him? How does the manager for
partly along the Nile? I would like to see him, I think
would not be difficult. It would mean nothing along
about five times, I suppose.
You are no doubt familiar with Major Giff's name
on Nelson in London. I found it when it was first
published; but, when I asked to know if it was a little while
ago, I found it was out of print in England. But I got
a copy from India, and it has just arrived. The description
of the illness is so documented, so calm, so free from
exaggeration that I feel tempted to say to myself "but
the dates of illness given in that case?"
The ...



(11)

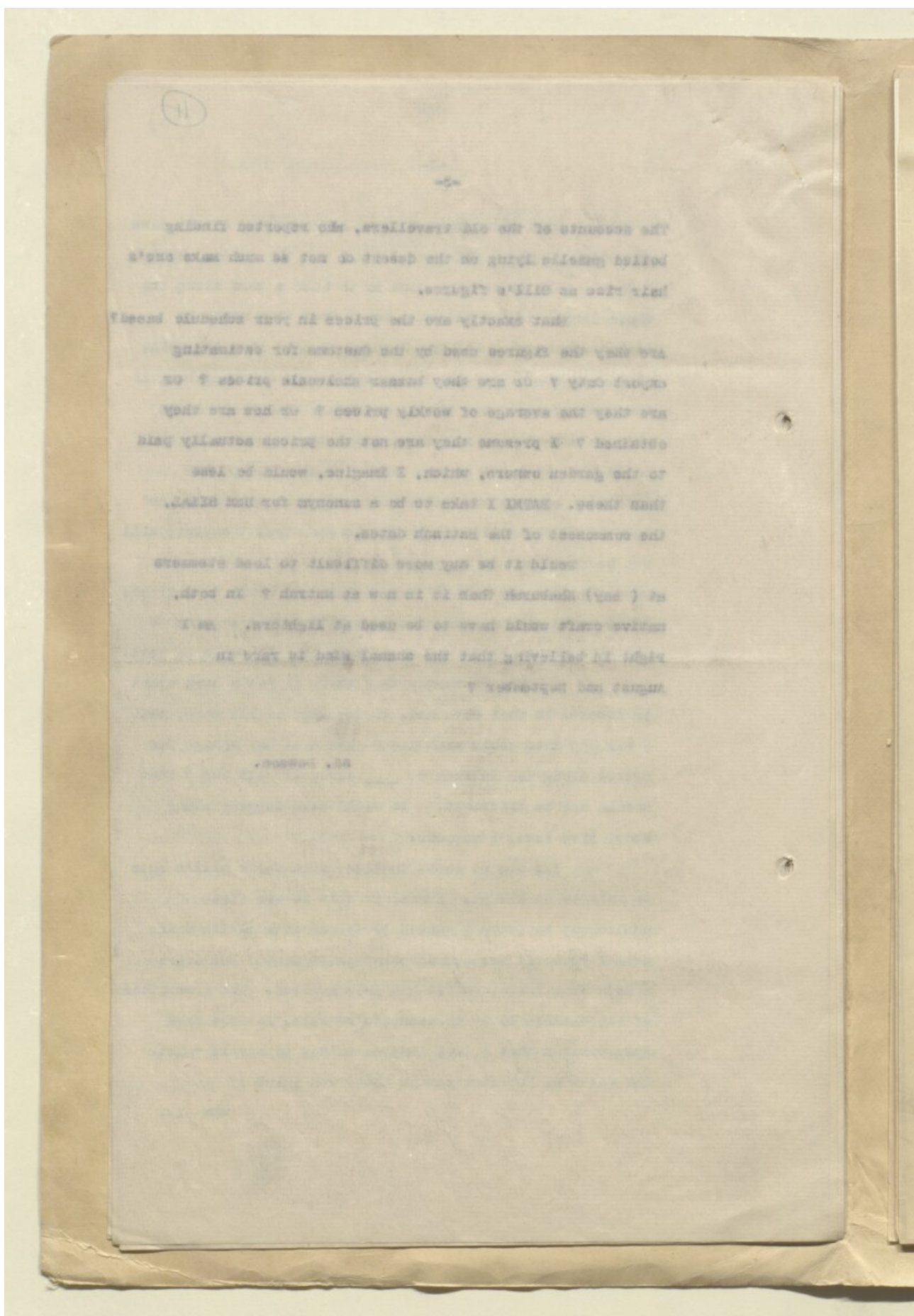
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The accounts of the old travellers, who reported finding
boiled gazelle lying on the desert do not so much make one's
hair rise as Gill's figures.

What exactly are the prices in your schedule based?
Are they the figures used by the Customs for estimating
export duty ? Or are they bazaar wholesale prices ? Or
are they the average of weekly prices ? Or how are they
obtained ? I presume they are not the prices actually paid
to the garden owners, which, I imagine, would be less
than these. BAFNI I take to be a synonym for UMI SILAL,
the commonest of the Batinah dates.

Would it be any more difficult to load steamers
at (say) Khaburah than it is now at Matrah ? In both,
native craft would have to be used at lighters. Am I
right in believing that the Shamal wind is rare in
August and September ?

Ed. Dowson.





(12)

Section of Mr Dowson's report on the

Fauna Flora, Geology etc., of the parts

of the Batinah visited by him in 1927.

Agriculture.

The principal industry of the litoral and of the interior is date growing. Wherever there be water, the date palm is grown. It is the first crop to be cultivated; the others with the possible exception of wheat and barley, follow and profit by the palm's shade.

Labour.

Colonel Miles gives the following tribes as cultivators of dates: Bani Ali, Bani Bu Ali, Bani Battash, Al Rabus, Al Rajriyin and Al Ibriyin. More often than not the date gardens are the property of absentee lords. In the cases, they are generally not far absent, since most of them live in the villages which form the oases --- centres. In winter here also the cultivators live, though in summer they remain in the gardens. Many of the owners of Batanah dated ~~garden~~ gardens live in Muscat or Matrah or in other of the larger coast towns. A big landlord is called Mankari. Malak is not understood, but RAI'AL Mal is frequently spoken of. The actual cultivation when not carried out by the peasant proprietor, Bardhil, pl. Baradhil, a word also meaning 'a lazy fellow' is in the hands of a paid labourer, the Bidar, corresponding with the Falah of the Iraq, enjoying less security of tenure than that provided by the Taabah tenancy of that country, or the Maurisi of the Punjab. In the Wadi Samayil every Bidar receives, at date harvest one bunch of dates from each palm irrespective of the number of bunches borne. In the Batanah on the other hand he never receives dates but nearly always money, sometimes money with food or with food and clothes. In both districts, fruit other than dates is the exclusive property of the garden owner. There must be an immense amount of pilfering however. Fallen fruit is the tenant's right. The provision of off shoots, fruit trees and irrigating cattle and the food of the latter is on the owner. Lucerne seed and that of wheat and barley are also provided by the owner who takes four-fifths of the crop from the former and nine-tenths of the crop of the two latter. Millet is usually grown on the same terms as lucerne but not invariably so. Truck and minor crops are sown with the tenant's seed and are his own property. The amount in cash which a Batanah Bidar receives, in the cases where no food and clothes are received is about five Rialat a month. This was the commonest figure given in reply to questions, but an old man at Al 'il said he got fifty Rial a year and two younger fellows with him said they each got forty Rial. A garden near Rumais was looked after by a small boy and a young man, the former got $\frac{1}{2}$ Rial a month plus food and the latter $\frac{3}{4}$ Rialat plus food. Kadhim a merry and well spoken half negro half arab lad working in the garden of Saiyid Muhammad got 4 Rialat a month in addition to food and clothing but he seemed to be a favourite with the old man. Food is generally reckoned as being worth $\frac{1}{2}$ Rial a week. If then the average wage for a Batanah Bidar be only 60 Rial a year as the other emoluments are the same as those of the Wadi Samayil, it might be supposed that 60 Rial is the value of one bunch of dates from every palm in the average holding of a Samayil Bidar. If one bunch per palm be equivalent with one-eighth of the crop, the total crop would be worth on this basis 480 Rial. With dates at 50 Rial a Bahar, the total production would be a little less than 10 Bahar, or 16,320 lb. This amount of dates might be produced on 163 palms or about 3 acres of garden. Actually all the Batanah tenants appear to prefer to be paid as in the Samayil, so it may be presumed that the rate of pay is higher there and that the area of a Samayil holding is greater than suggested above. That this presumption is correct is borne out by the other, rough observations, which indicate that the Samayil holding is nearer 4 or 5 acres than 3. In the Batanah however the area is nearer 2. In the latter district, the tenant has to raise all the irrigation water from wells: In the former, the water is

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almost entirely provided by flowing springs; consequently the cultivator can manage a greater area. In a bad year, the Samayil cultivator stands to lose. Probably here is the explanation of the high wage rate compared with the lower, but fixed and certain wage rate in the Batanah. Further the wage rate in both districts is fixed by long custom; the drought must have caused the prices of agricultural produce, including dates to rise. Hence a cultivator paid in kind would be likely to be temporarily at least better off than one receiving a money wage.

Cultivation and Implements.

The soil of the whole area is light sand. There is no clay though Palgrave mentions the existence of a single bed of pottery clay near the coast not far from Matrah. Drainage is excellent and there is no alkali land if the slight amount nowhere a rank growth of weeds and cultivation is of the scantiest and shallowest. One who is used to an English spade smiles at the Mishah of the Iraq. He would laugh aloud and long at the similarly named implement of Oman. It indeed resembles more a weed stubber than a spade.

Plate xxv. The Mishah held by a Batanah Cultivator.

There is no hard clay to be turned over, no sodden, baked, iron bound land to be broken up nor are any deep channels to be dug out. The chief use of the spade is to dam up the tiny water courses, in turn as each bed by irrigated.

The plough Hissa, Faddan not understood is also absurdly small and light and made of wood iron tipped. It is drawn by one cow or bull. If ploughing be by contract and there be but a small piece of land to be ploughed containing only a few palms the usual rate is 5 Fai a palm, the plough, plough animal, and labour being all provided by the Contractor. This rate is equivalent to about a Rial for an acre. Generally however if much land is to be ploughed, a bargain is struck for the whole piece.

The third implement is the MIQASS, which is similar to the long kind of MINJAL of the Iraq; that is it is long only slightly curved, toothed sickle used in the Iraq only for pruning palms, but in Oman also for cutting fodder, and labour reserved in the Iraq for the smaller more curved Minja. Miqass is scissors in the Iraq.

A HIB a long chisel for separating of shoots from their parents, completes the list of agricultural implements.

THE TAWI.

In the Wadi Samauil the size of a man's holding is computed from the number of palms it contains. The units of area, FIDDAH, MASHARAH, QUNALAH, JARIB, or DAUNAM, appear unknown. In the Batanah however the garden fruit is the Tawi plant. Tawian, so called presumably in reference to the stone built water hoist. This is the amount of date garden watered by one single or double water hoist. Three of these, at Shib, belonging to Shaikh Rashid, were surveyed, with the following result:-

	Bearing off shoots Palms	Fruit trees	Total Palms	Total Palms & Area. Off shoots off shoots in & Fruit Trees	Approx. Area. Acres
A. Double	44	137	69	181	250
B. Single.	13	81	22	94	116
C. Single.	94	0	38	94	132
Average	38	54	32	92	124
Reckoning A as 2-					1 2/3.



almost entirely provided by flowing springs; consequently the cultivator can manage a greater area. In the past, the Muscat date trade was a local one, but now it is the exportation of the high rate compared with the lower, but fixed and certain wage rate in the interior. Further, the wage rate in both districts is fixed by long custom; the Muscat date trade has caused the price of agricultural produce, including dates to rise. Hence a cultivator paid in kind would be likely to be temporarily at least better off than one receiving a money wage.

Cultivation and Implements.

The soil of the whole area is light and there is no clay though lightness suggests the existence of a single bed of pottery clay near the coast not far from Muscat. The soil is excellent and there is no alkali land. It is the highest amount nowhere a tank growth of weeds and cultivation is by the use of a wooden plough and a wooden harrow. The soil is used for an English garden and the Muscat date trade. It would be a good and long at Muscat. It is the highest amount nowhere a tank growth of weeds and cultivation is by the use of a wooden plough and a wooden harrow. The soil is used for an English garden and the Muscat date trade. It would be a good and long at Muscat.

These are the Muscat date trade.

There is no hard clay to be turned over no wooden plough, from being so hard and dry the channels for the water are not so deep as they are in the dry water courses, in fact as each bed by irrigation.

The plough Muscat, Muscat not understood is also a wooden plough and made of wood transported in a box by one cow or bullock. It is ploughed by a single animal and a small piece of land to be ploughed containing only a few palm trees. The plough is a simple animal and labour being all provided by the cultivator. This is a simple animal and labour being all provided by the cultivator. This is a simple animal and labour being all provided by the cultivator.

The third implement is the Muscat date trade. It is similar to the long kind of Muscat date trade. It is a long only slightly curved, toothed stick used in the date trade. It is also used for cutting tobacco. It is a long only slightly curved, toothed stick used in the date trade. It is also used for cutting tobacco. It is a long only slightly curved, toothed stick used in the date trade.

A few more implements for separating of Muscat date trade, completed the list of agricultural implements.

THE DATE.

In the Muscat date trade the date of a man nothing is counted from the number of palm trees. The date of a man is counted from the number of palm trees. The date of a man is counted from the number of palm trees. The date of a man is counted from the number of palm trees. The date of a man is counted from the number of palm trees.

Area	Total Area	Total Trees	Total Dates	Total Value
A. Muscat	100	100	100	100
B. Muscat	100	100	100	100
C. Muscat	100	100	100	100
D. Muscat	100	100	100	100
E. Muscat	100	100	100	100
F. Muscat	100	100	100	100
G. Muscat	100	100	100	100
H. Muscat	100	100	100	100
I. Muscat	100	100	100	100
J. Muscat	100	100	100	100



14

This part of Sib is said to contain more fruit, trees especially mangoes than any other part of the Batanah. Hence the incidence of date palms might be expected to be low. On a walk from Sib towards Rumaïs, the numbers of bearing palms in various Tawān along the road were counted roughly. They were as follows:-

D. Double Hoist	300	bearing palms.
E. Single	200	do
F. do	150	do
G. Double	300	do
H. Single	175	do
I. do	100	do.
J. do	4	do.
K. do	60	do.
L. do	60	do.
M. Double	400	do.

Average 135.
Reckoning D, G, and M as two ea ch.

Saiyid Saifim the Wali of Sib, considered the average number of palms in a single Tawi as 200. But this seems an over estimate. A figure nearer 100 would seem more likely with the average number of acres in the Tawi as two and the average spacing of palms 30 feet ~~xxx~~ each way.

The same informant considered that the irrigation of the Tawi cost the owner 100 Rial a year, 60 for the Bidar and 40 for the bull; but most people considered the bull as expensive as the man. Reckoning that it costs 120 Rial a year to water and look after 100 bearing palms, and reckoning the yield per Batanak palm as 75 lb then the cost of producing dates without any charge for supervision interest on capital or for taxes works out as 0.95 cents per pound. One tenth of the gross crop is supposed to be rendered as government tax. The net return of each palm to the grower thus becomes 67-5 lb., so the cost of producing dates without reckoning anything for interest on capital or for supervision becomes 1-60 cents a pound. If the average price of dates in the Batanah gardens during the season be 40 Rial a ~~xxxx~~ Bahar, the price per pound is 1.4 cents allowing 0.34 cents between the cost and the selling price of a pound. Young mature palms of good varieties well bearing cost nothing up to 100 Rial each; so perhaps a fair average price for a Tawi might be 5000 Rial. So counting nothing for supervision, the interest on invested capital in a Batanah date garden may be about 0.86% or 25 50% per Tawi per annum. from date Auxiliary crops add to this return. As noted later lucerne can be profitable. Fruit brings in something, though prices are low. Mangoes at Sib were selling at 250 for a Rial last June. Limes were selling at about the same price in the Wadi Samayil at the same time.

The water hoist used to irrigate the Tawi is of the ordinary Arabian type. The water is about 20 feet below the ground level from Ali Hil to Rumaïs; so probably may be at this depth all along the Batanah. The vertical supporting hoists are usually made of palm logs sawn longitudinally in two. They are strong and smooth. In other date producing centres the palm logs are the worst of building wood, for the reason that the internal fibres are loose and tear out. To plane such a log is like trying to plane a bath luffah. The water is dropped from the bucket on to a masonry collecting trough and thence led through a subsidiary bathing tank into the main storage tank. Here it remains until the Bidar has finished hoisting. He then unplugs a vent in the tank and occupies himself in distributing the water. He is drawing water from before the palest streak of dawn to sunrise, and from early afternoon to sunset. Perhaps he and his bull work about seven hours a day at this labour. In all the Batanah there must be 15000 and more men and ~~xxxxx~~ animals so employed year in and year out.

Plate xxvi. A Water -Hoist at Safalah.

To western ideas the wastage of man and animal



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animal power is appalling. What of course is wanted is a crude oil, electric power station at Khaburah to supply a high voltage line the whole strength of the Batahah. There might be five main reduction station and each group of fifty Tawian could have secondary reduction station each Tawi would have a meter, a I.H.P. motor a rheostat and a 1 inch centrifugal pump all built as one unit under one cover. The Hidar would switch on the current the water would flow to him all he would have to do would be to direct the flow. Being relieved of the labour of having to raise the water, he could spend time improving the cultivation of the land and in growing cotton ground nuts sesamum and other profitable ground crops instead of leaving the land nearly bare as now. But of course such a scheme will not materialise under the present regime. Even in the capital Maskat a town possessing a climate considered by most visitors to be more unpleasant in summer than that of any other town in the Near East or Far East, there are no electric lights fans or ice machines.

However what is feasible in the Batahah is the installation of either small oil engines and pumps or else mills. There is a sea breeze by day and a land breeze by night. The wells and tanks are already installed. The size of the Tawi is not too big for a windmill to irrigate. Whatever mechanical means were employed to raise the water the stumbling block would be the capital expenditure required. However if some windmill firm were to establish itself in the Batahah and would be apt in collecting the instalments on its plants probably people could be induced to buy. Windmills are used for irrigating small area date gardens in Shaikh Oman near Aden in various places in Algeria and have been introduced recently into Bahrain and Amarah in the Iraq. However farmers do not change their ways unless compelled by economic pressure. And not always then. Nevertheless if the bigger landlords could be brought to see that their irrigation is now costing them tentimes what it could cost them they might make the change. The Argentine is buying windmills at the rate of 16000 annually.

One double water hoist raised the level of the water in a tank, 200 feet by 24 feet one and a half inches in hand and hour. One single water hoist may be expected therefore to raise 375 gallons of water an hour. A half inch, centrifugal pump driven by a motor of one third horse power would raise as much. Palms are watered twice a week in the Batahah. Thus in a week each palm received reckoning no loss by seepage and evaporation in the channels about 150 gallons of water. Were water easier to come by the palms would probably receive more and an increase in yield comparable with that of palms in the Wadi Samayil might result.

The Tawi is usually fenced round with thorns and big euphorbia(?) bushes. Sometimes a railing is made of palms at 20 feet intervals rather reminiscent of English split chestnut fencing. To allow a passage to pedestrians but to keep out cattle a rough gate in the fence is often made of three cross poles and two uprights and once in a bleak glade where the acacias (they might have been Maik bushes) hid the palms, a stile was encountered.

Irrigation.

The water hoist, Zighah as it is the heart providing the life blood, of the Tawi has been described already. Through out the Batahah is heard the plaintive shrieking of the pullies. To a suggestion that the axles might be oiled the reply came that the noisy wheel was better, Ahmadi. Major Chessman had the same reply in Haf Haf.

Some of the gardens at Mib were located in the dry beds of the torrents. To provide for the rare occasions when these are flooded masonry dams are built across the stream beds thru the gardens. The velocity of the water is thus diminished and



and the water instead of rushing to the sea is held up and sinks into the ground irrigating the land and augmenting the sub-soil water.

~~XXXXXXXXXXXXXXXXXXXX~~

In the Wadi Samayil and in other wide an seen in the interior with the exception of a little water provided by water hoists to the drier parts of the oases all the irrigation water is from springs. The water from these springs would flow under ground and never be seen were it not that under-ground channels have been constructed with gradients less than those of the wadi beds above them. At a distance from the springs varying its depths and with the relative slopes of the channel and the wadi the water is brought to the surface. At this point the oasis begins, and continues until there is left no more water to irrigate the palms. Such an artificial underground water course is called Falag. In Morocco such a one is called Fugarah in Persia Qanat. Wells are first sunk in ~~XXXXXXXXXXXX~~ line at intervals varying from ten to thirty feet and then the connections are established between them. The labour of constructing these channels with a crow bar as the only implement is considerable. The interior of the channel is cemented with a mixture of lime and plaster of Paris. Some the channels date from remote times probably, but new ones continue to be made. It may be that channels are more numerous now than formerly but it is more probable that the new ones do no more than take the place of old ones dried up or filled in. In a Falag under construction at Misfah al Aliyah, a well about 20 feet deep had been sunk by four men in six days.

The main channel of a big spring where it issues from the ground may be two feet wide and two feet deep. Such channels were half full in June. Small effluents are constructed and the ultimate branches in the gardens are no more than six inches wide and four inches deep. The slope of these smallest distributaries is reckoned as three fingers a hundred cubits or rather more than 1 in 1000. The surface channels are constructed of the same sort of cement as those beneath the ground that is of a mixture of lime and plaster of Paris. A rough foundation is first made of cemented pebbles. The lime is prepared by burning the rounded limestone pebbles which abound on the surface and just under the surface of the wadi bed and in the conglomerate of the hills. The plaster of Paris is prepared by burning a reddish earth which is widespread after this has been puddled with water and dried in the sun in cakes. Such a profusion of calcium sulphate in the soil must be particularly beneficial to agriculture, in that it neutralizes toxicity of much of the harmful chloride of the alkali metals. It is certainly a fact that date palms never seem to do so well as in well drained districts where the water is plentiful and where the soil is rich in gypsum given of course the climatic conditions are suitable. In Algeria, in the Wadi Sufar, as the French prefer to call it, the Oued Soud, calcium sulphate and water are as plentiful as in Wadi Samayil and drainage is as good; and the date palms are perhaps the only ones in the world which approach in vigour those of the Sama il. Gypsum is known as Saruq. Jus of the Italian Gesso is not understood, nor is the Persian Gach.

Water rights are inherent in the property rights. The price of a garden is always inclusive of that amount of water to which it is entitled by custom. The customary rotation of water to the gardens is exactly adhered to and disputes which are rare are referred to the shaikh for decision. Some gardens are watered as often as every four days but the interval varies up to a maximum of eighteen days. In the gardens, which get such infrequent waterings pits are commonly dug round the palms so that the greatest amount of water may be obtained at each watering as is done in the drier gardens of the Algerian Miban.

Dated and Date Palms:



And the water instead of rushing to the sea is held up and
drips into the ground irrigating the land and replenishing the
sub-soil water.

XXXXXXXXXXXXXXXXXXXX

In the well known and in other wide on some
in the latter with the exception of a little water provided
by water holes to the date trees of the desert all the living
after water is from springs. The water from these springs would
flow under ground and never be seen were it not that water -
ground channels have been connected with gradients less than
those of the water beds above them. At a distance from the springs
varying the height and with the relative slopes of the channels
and the well the water is brought to the surface. At this point
the water begins, and continues until there is left no more water
to irrigate the palms. When an artificial underground water
course is called for, in Morocco such a one is called *qanat*
in Persia *qanat*. Wells are found such in *XXXXXXXXXXXX* line as
XXXXXXXXXXXX varying from ten to thirty feet and then the connection
are established between them. The layout of connecting these
channels with a view to the only important is considerable.
The interior of the channel is connected with a network of lines
and clusters of wells. Some the channels take these routes from
probably, but not even continuous to be made. It may be that some
channels are more numerous now than formerly but it is more
probable that the new ones are more than take the place of old
ones that up to filled in. In a rising under construction of
XXXXXX at XXXXX, well about XXXXX deep had been sunk by 1907
and in six days.

The main channel of a big spring where it issues
from the ground may be two feet wide and two feet deep, much
channels were built in 1906. Small channels are connected
and the width of channels in the gardens are no more than six
inches wide and four inches deep. The width of these channels
XXXXXXXXXXXX is reckoned as three fingers extended and
or rather more than 1 in 1000. The surface channels are connected
of the same sort of cement as those beneath the ground line is
of a mixture of lime and plaster of Paris. A rough foundation is
laid marked concrete pillars. The line is prepared by burning
the rounded limestone pillars which should be surface and in
under the surface of the well bed and in the compartments of the
XXXXXX. The pillars of Paris is prepared by burning a reddish earth
which is sieved after this has been crushed with water and
dried in the sun in cakes. Such a protection of surface channels
in the well must be particularly considered to be sufficient, in
that it necessitates security of much of the natural channels of
the channel itself. It is certainly a fact that date palms never
grow to be so well as in well drained districts where the water
is plentiful and where the soil is rich in gypsum given off course
the climatic conditions are suitable. In Algeria, in the south and
at, as the French prefer to call it, the good sand, contains sulphur
and water and as plentiful as in well known and drainage is as
good and the date palms are between the only ones in the world
which approach in light those of the same in *XXXXXX* as
XXXXXX. One of the Italian bands is not understood, not in the
XXXXXX band.

Water rights are inherent in the property
rights. The price of a garden is always inclusive of date amount
of water to which it is entitled by state law. The ownership rights
of water to the gardens is exactly defined so and disputes which
are more or less referred to the *XXXXXX* for decision. Some gardens
are watered as often as every four days but the intervals varies
up to a maximum of eight days. In the gardens, which get water
infrequent watering with are commonly and round the palms so the
the greatest amount of water may be obtained at each watering as
is done in the date gardens of the Algerian *XXXXXX*.

XXXXXX and XXXXX XXXXX



(7)

Plate xxix. Dead palms in the Oasis of Miltqah al Aliyah, with terraced wheat land in foreground.

Almost all the palms in the oasis of Miltqah al Aliyah have died; a great many are dead in Al Amqat and some are dead in Bifalsh, Ghubrah, Khaur, Awainet, Masas, Sarur, and Miltqah al Hadariyah.

~~XXXXXXXXXX~~

Plate xxx. The oasis of Miltqah al Hadariyah at the junction of the Wadi Samayil and the Wadi al Gailah where a quarter of the palms have died of drought.

For this cause and exodus of the people to Zausibar is said to have occurred, their levelhood in the Oman being gone.

An informant said that one male was planted to every ten females. From observation males would seem much less frequent than this. One to fifty females appeared nearer the truth.

A female palm which in any one year may not be bearing is called Hail. In the Iraq it is either so called or else Hail.

Dates of ripening.

In Matrah and Maskat on the 3rd of June there were available and had been for some days Maghal Dates half way between Khalal and Ratab. These had come from Batanah. Unripe dates are green, when they reach full size the green colour of the skin changes to yellow or red or red and yellow. The flesh is still firm. Many varieties of dates in this stage are edible though there is still so much precipitated tannin in others that they cannot be eaten, until a later stage of ripening be reached. Dates at this stage of ripening are known as Khalal in the Iraq but as Bisir in Oman and in North Africa. Ratab dates are those which have developed beyond the Khalal stage and the flesh has softened. The dates are now syrupy and sticky. On further drying the dates become Tamar, firmer and darker than the Ratab. In Oman Tamar are called Sar. Dates picked up in the Ratab stage go bad in a few days in the Tamar stage they keep for ever, if protected from insects, because of the high sugar concentration. In the Samayil on the 7th June Khalal were common and had been so far for over a week, but they had not become to soften into Ratab. It was not until the first week in July that any Khalal were seen in the Basrah market. These were Hailawi selling at eight annas a huggah i. e. 6.4 c a lb. The earliest dates in the Wadi Samayil are thus six weeks earlier than the earliest in Basrah. In the Batanah they are probably two months earlier. It is stated that Oman has Khalal and Ratab dates for five months in the year beginning with Magal and Qash Batah and ending with the winter varieties of Khisab and Hilali. In Basrah the season is between four and five months long beginning with Braim and ending with Khaseb.

Cooked Dates.

There is a great trade in cooked Bisir in the Iraq called Khalal Marbukh in Persia Kharak the Babasli variety is that which is most commonly cooked but there are many other varieties amongst which are the Batni and the Ummi. The export of these cooked dates is almost all to India and they and other (Braim and Chichhab) from Basrah can be found in most North Indian bazaars.

Plate xxxi. Furnace for cooking Dates at Bifalsh. The four Pillars are designed to support a roof over the cooking pots to the left is the chimney.

Diseases.

In the Batanah the majority of palms are more or less scored with borer holes and in some cases are half eaten away.

Arachnids. the web spinning red spider was

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with rarely most commonly in the dry northern end of Khubar. a disease called Maraq was well known but no afflicted palms were seen. I was said that a honey like substance covers the date bunches and spoils them.

Yield. The yield of palms this year in the Wadi Samayil is probably twice that of those in the Shatt al Arab district. If 50lb a palm be the average yield per palm in the latter location in the former, it might be put at 100 lb and in the Bataanah at 75 lb. The commonest number of spadices or fruit bunches Asqah, pl. Asaq in the Iraq Athqah and Athaq, in the Samayil was 9. The average per palm was perhaps 8. In the Bataanah there were gardens where the yield appeared truly extraordinary. In some of these particular gardens no palm had less than 12 to 15 bunches and each would have weighed about 15lb. In the very best gardens of Basrah also there are palms, Hallawi which are stated to produce 150lb of fruit annually. A hundred palms such as these would produce more sugar in an acre than is produced by the same area of the finest sugar cane grown under optimum conditions. What is the total yield of dates as cooked Bisir and as Bah is a question for the solution of which data are of the scantiest. If the previously suggested figures for yield and numbers provisionally accepted than the 2,500,000 palms bearing each 85 lb of dates would give a total production of about 950,000 tons. But to be on the cautious side it would be as well to assume that the other valleys not seen are drier and less productive than the Samayil. That the northern end of the Bataanah is less flourishing than the southern and the average yield per palm over the whole country is nearer say 60 lb per palm than 85. On this basis the total production would amount to 670,000 tons but a remark is appended to show that these customs house figures represent about half the actual total report. That was before the reorganization of the Muskat customs. There is a large export to the interior, if one may say it, but probably greater than either the land or sea export. is the local demand. Dates enter more into the diet of the populace than they do in the Iraq since wheat and barley are not grown on a large scale and rice not at all.

Price. The price dates were selling at last year when the crop was considered short, varied in the gardens from 30kial a Bahar for Umm Billah to 50 or 60 Kial for Farash and Mabab i.e. from 10 a lb to 2 last year the high Basrah prices perhaps affected the Oman market.

Packing. Khalal and Katab were transported in circular protection made of palm frond midribs tied together with palm fibre twine. These protectors are a foot long and six inches in diameter and are open at both ends. The dates are inserted and the ends plugged with palm fibre. If such a protective container is called Mishan—about 20 such containers are packed in an open long squat basket of woven palm leaflets Khass known as Marhajah. The mouth is closed with palm fibre twine. The whole weighs about 14 or 15 Maskat Man or about 125 lb. Two such baskets is a donkey load as 100lb. Four such baskets are a camel load.

Plate xxxii. Khassah dates are usually packed Khassaf, baskets of woven palm leaflets open at the end only for the insertion of the dates. Once the dates are inside the end is closed permanently. It is in the containers such as these that dates are stored. These Khassaf are longer and flatter than those of the Iraq and hold rather more. The common sizes are made to hold 10 Maskat Man and 20 Maskat Man. It might be thought that the Bataanah where palms are so abundant would have provided all the containers for its own dates and more, but actually there is a large import of Khassaf from the Samayil at about 8 Rialat a 100 or 50 each because the leaflets of the Samayil palms are so much long wide and strong than those of the Bataanah palms.

Varieties. The Barehi palm was seen at Samayil. The fronds are fine and graceful the leaflets fine long and feathery. The

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Perhaps in the Iraq, a big shoot is necessary, so that the root may be beneath the surface salt. 50 to 75 % are said to survive.

Plate xxvii. Young Umm Sillah Off shoots at Sib.

These small shoots are sometimes planted in nursery beds, Qalbah, Qalbat. They are much less wrapped up as shown those of the Iraq probably because winter in the Batanah and near the coast brings no frost and because in summer there is no or less tearing raging scorching blasting dust laden, Iraqi Shamal the N.W. wind from the burnt up desert. The off shoots are planted nearly always in pits. Perhaps this is because the pits provide shelter, perhaps because the roots get nearer the sub-soil water but more likely it is so that the roots are buried firmly in the light soil and are anchored against high winds. Many are the palms seen supported by palm buttresses. Sometimes a palm likely to fall is held in place by a stone wall four feet high and six feet in diameter. The space between the boll and the wall is filled in with rammed earth.

On the whole planting is less regular than in the Shatt al Arab district though in some gardens, the palms are set rightly at the corners of squares. The unevenness of the land may be contributory cause of irregular planting though the same excuse does not hold for the Batanah.

The price of off shoots of most of the common varieties is twenty or thirty 'ai or about 5c each; but Faradh off shoots command twice that.

Plate xxviii. Off shoots planted in pits in a garden of Faradh palms at Sifalah.

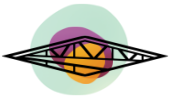
A seeding is known as Qash. In the Iraq a seeding is known as Diqalah; while in Morocco, Algeria and Tunisia in addition to this weed, Khalt is also used.

Manuring is practiced. Camel dung is the favourite application. Dr. Popenoe states that manuring is annual. Niebuhr states that fish offal is used for manure. From what the present writer observed after the goats, cows, donkeys and as (the Greeks would say) other birds had finished with the fish, there remained very little offal. In North Africa and thru the date palm zone to Persia, the dead fronds are cut off close and distally to the swollen base. In a tears time the swollen base now hard and dry is cut off close to the trunk and used for firewood. In Oman the swollen base is not cut off perhaps because the Shumar and other trees provide anywhere abundant fuel. Similarly in the Punjab the bases are left on the palm. In California also the frond bases were not cut until recently. Some apprehension was felt when it was observed that roots were growing out of the trunks underneath the frond bases, and were pushing the latter off. From what appeared in the Wadi Samayil where roots could be found commonly found pushing off the frond bases to a height of six feet from the ground, this root product is not harmful to the palm. The frond bases once pushed off, the aerial roots dry up and drop off. The trunk is called Garidah when alive but when dead and cut up for the carpenter it is called Garduah.

In the Iraq Garduah is the trunk alive or dead while Jaridah is the frond midrib. Of the district of the Jarid in Tunisia. The frond in the Wadi Samayil is Surah pl. Zur

The vigour of the Samayil palms is astounding. The average height is half as high again as that of the Iraqi palms fronds twenty long are common and trunks were seen which looked three feet in diameter. though they were not measured. And there are the palms which have been subjected to a nine years' draught. Many palms in the drier parts of the oases have died but not a large portion of the whole.

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The General appearance of the palm is reminiscent of the Dairi and Khadrawi of the Iraq. The fruit is somewhat spherical and juicy. The palm was not found at Al Hil.

A small date called Ratni was seen as hardly ripe Khalal in Matrah market. 4,6,27 It is said to be exported to India as Khalal Maybakh. It is considered inferior.

Bilq is found in Samayil and in the Batanah. The fruit stalks are orange in colour.

Birni palms are very common in Al Aliyah and less so in the Batanah. The fruit stalks are bright yellow. The date is long and thin and was still green the first week in June. It is considered a good quality date.

Bu Maringe is found at Samayil and in the Batanah.

The Faradh palm is the commonest in the seven miles of the oasis of Al Aliyah Saifalah Hmbrab Khubas where it may perhaps constitute one third of the palms. It is said to be one of the three commonest at Wajah and Khadth, but in the Batanah it is hardly to be met with. The fronds stand well up nor bend but they are not numerous. The date is small and dark reddish brown. The stone is small the flesh firm, and the skin not easily broken. The flavour is strong. The harvest is not very early for Oman being in the early part of August near the coast but at the end of that month further inland. The date is the only one shipped to America in large quantities. This trade is old established as there are records of as many as four ships calling for these dates to take them to America in the year 1818. In 1864 the exports of America are first shown separately by the Custom authorities. The export however appears never to have reached 3000 tons, and the average appears to be half the amount. The total crop within a radius of two days donkey journey of Matrah probably does not exceed 3,500 tons. For 1900 the price of Faradh dates was only slightly higher than that of the other dates exported. Recently however the average export price of Faradh dates has been double the average price of the total dates exported. The American export is nowadays contained in 112lb boxes nine of which are packed up in case. The rejects from the packing are shipped to India.

Plate xxxiii. Faradh palms near Al Aliyah Market. Athtrab tree on right.

Hatilmi is a large palm at Samayil.

Hamhi dates are small.

Handbal or Qash Handbal palms grown at Samayil and in the Batanah.

Plate xxxiv. A Handbal palm at Wajah Al Aliyah. The untrimmed frond bases can be seen. On the right is a terrace wall of this excellently terraced oasis.

Kasas Palms were common to the Wadi and Batsah.

Hilali palms common to both countries. It is an even later ripening date than Khabed. The quality is good.

Jabri was found at 'ib.

The Khalas is an important date variety. It is common in the Wadi Samayil, but none were seen in the Batanah. The palm has a bushy head. The excellent quality of the dates is everywhere recognized. The colour is fine reddish brown.

Khamari palms are the third commonest at Al Hil. The dates are early and the Khalal yellow.

The Khasab palm which is found as far north as

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Baghdad in the Iraq, is one of the four commonest varieties in Al Aliyah is common at Ghallah and is present in the Batanah. It is said to be ~~the~~ the commonest variety at Nakhal. The fronds are upstanding. The leaflets are more at right angles in the midrib than are those of the Khinailli. The whole appearance of the palm is more feathery than that of the Faradh. The palm does not bear so heavily as the Faradh, although the latter dates are more expensive. It is the latest date to ripen with the exception of Milali. The khalal are a fine dull carmine and appearing in the groves when the other dates have long been cut are striking. Last year's Tamar were to be obtained in Matrah market this June.

Khinaizi palms were found at Gallah and at Al Hil. The red Jhalal were in the Matrah market on the 4th of June. The fronds are outstanding. The leaflets are somewhat closely appressed to the mid rib. The dates are said to be excellent.

There are Lazad palms in the Wadi Samayil but none were seen in the Batanah. The dates were green early in June. The Ratab are said to be good.

The Mabasli variety is one of the four commonest in Al Aliyah, there are a few palms at Al Hil, and it is said to be one of the three commonest varieties at Khauddh. It is said that it is the commonest variety at Wadi Samayil. It can claim to be one of the leading varieties of Uman and for export. Almost the entire crop if not all is made into cooked Bisir and it is in that form that it is exported. It is a dearer date than Khasab.

The Madulki variety is found in the Wadi and at Al Hil.

The Minzif was seen in the Wadi and at Sib though not at Al Hil. The palm is Hallawi like with long thin fronds. The dates were still green the first week in June rather narrow and rather long.

Mizmag palms were seen at Al Hil Ghallah and many in the Wadi Samayil. There are palms called Mizmag Al Bahar and others called Mizmag Al Uman but these are thought to refer to the same variety. The Khalal are red were on sale in Matrah market on the 4th June.

Yellow Khalal called Masri were on sale at the same place on the same day.

The Sagral variety is one of the commonest. There are some at Al Hil, and they are said to be common all along the Batab. They are said to be one of the commonest sorts at Finjah and Khauddh. They are one of the four commonest at Samayil. At Ghallah they were common. The date presents points of resemblance with the Ayir of Iraq, in that it is common the Khalal are edible, and yellow and the half Ratab dates show a very definite and distinctive line of demarcation between the apical Ratab half and the basal Khalal half.

On the other hand the Marbal dates resemble the Hallawi in size in earliness and by a characteristic white basal part of the Tamar. This white base is not noticeable in Hallawi dates when the palms on which they are borne have suffered from drought and earn from them the title Feathers of Little pores Abu Shashain, upstanding. The leaflets are more at right angles to the midrib than are those of KHINAILLI. The whole appearance of the palm is more as the ~~XXXX~~ FARADH. The palm does not bear so heavily as the FARADH although the latter dates are the more expensive. It is the latest date to ripen with the exception MILALI. The KHALAL are a fine, dull carmine and appearing in the groves when the other dates have long been cut are striking. Last year's TAMAR were to be obtained in Matrah market this June.

A few Marghili palms in AL HIL.



Plate xxxv. A Naghal Palm at MisMaH at Alyiah. The bases of the fronds are not cut out. In the foreground a small water fall of irrigation water descending from one terrace to another.

Naghal Al Kharnak are in Al Hil and in Samayil.

Qash Akmar is the same of a Samayil variety. The red colour of the Khalal was just beginning to show on the 7th June.

Qash Barash was seen at Samayil but not in the Batanah. In the Samayil it is the earliest date to ripen but it does not find its way into the Matrah market earliest because the Naghal of the coast are before it. The Khalal are red.

Qash Gahili was seen at Sib. The dates were in the Khalal stage (yellow).

Qash Mamurah is the second commonest date at Al Hil and is said to be very common along the Batanah. It was seen only occasionally in the Wadi Samayil. The dates were in the Khalal stage. They are almost as early as Naghal.

Qash Malying palms are in the Batanah and in the Wadi.

The big handsome Qash Bunnah palms were encountered at Samayil at Al Hil and at Sib. The dates turn red straight from green without any yellowing and this gives them a curious appearance.

Barki dates are cooked and exported to India.

Barnak palms have red fruits stalks. They were seen in the Wadi and in the Batanah.

Like the Qash Bunnah the dates of the Umbrut variety melt from dark green to dark red making them look dark and unusual. These Khalal are bitter but the Batab Tamar are said to be good.

Shaham dates are reddish brown yellow Khalal at Sib early in June.

Silani dates were yellow Khalal at Sib.

Buri are said to be sent as Khalal Matbukh to India.

Qumari are said to be exported in a similar manner. Is this a trade synonym for Mahasli?

Plate xxxvi. Young Umm Sillah Palms at Sib. Round cash is a circle of Millet Grasshopper.

Umm Sillah is the commonest Batabah date. If it be reckoned that one third of all the Batabah palms be of this variety to total varieties at Sib it would be good for the whole tract there must be about half a million palms Umm Sillah early in June. The dates were still green. Last years' prices were from 30 to 40 Rial a Bahar i.e. 1 to 1/3 of a pound. It is the commonest date met with in Baskets in the markets. The red Khalal of Umm Sillah were seen in Matrah. The Sibid palm is common in the Wadi Samayil and can be found at Sib. The general is suggestive of the Hallawi of the Iraq. The dates are said to be of good quality. They are small and very late.

